Subject Index: Volume 21, 1996

Abdominal surgery

epidural analgesia using morphine with or without fentanyl, 175

preoperative spinal bupivacaine for, 99

Acupuncture, 361

Adverse effects, transient radicular irritation after bupivacaine spinal anesthesia, 26

Afferent nerve activity, in behavioral response to formalin test, 226

Age, epidural space anatomy and, 395

Air bubbles, from inhaled nitrous oxide, 144

Alfentanil, in eye blocks, 171 (letter)

Alpha-adrenergic receptors, spinal clonidine failure for prostate resection and, 419

Ambulatory surgery, wound infiltration with ketorolac versus intravenous regional anesthesia, 565

Anatomy

considerations, for lateral sciatic nerve block, 414 of epidural space, examination by cryomicrotome section, 395

retrocrural, for celiac plexus block in pancreatic cancer, 407

Anesthesiologists, obstetric anesthesia and, 49

Anesthesiology competence evaluation, regional anesthesia learning curve and, 182

Anesthesiology education, regional anesthesia learning curve for, 182

Anesthetic technique

brachialis motor point selective block, 89 for combined spinal-epidural anesthesia, 599 (letter) dose response during continuous epidural infusion, 14 high spinal anesthesia after epidural test dose, 119 for incisional morphine, after herniotomy under spinal anesthesia, 93

needle redirection/position during neural block, 30 nitrous oxide inhalation, expansion of epidural air bubbles and, 144

for spinal anesthesia, volume versus concentration and, 112

for transarterial axillary block, 273 (letter)

unexpected neurologic deficit after spinal anesthesia and, 355

wound infiltration with ketorolac versus intravenous regional anesthesia and, 565

Angina, cardiac arrest in epidural anesthesia recovery and, 253

Anticoagulation

central neural block and, 529

oral prophylaxis, for epidural catheter removal, 517 postoperative with epidural analgesia, epidural hematoma after, 272 (letter)

Antimicrobial activity, of local anesthetics, 239

Antiplatelet prophylaxis, for epidural catheter removal, 517

Arachnoid cyst, with preeclampsia and triplets, epidural analgesia for, 592

Arachnoiditis

epidural injections, complications with, 149 and Guillain-Barré syndrome after postoperative epidural analgesia, 486

Arrhythmias, bupivacaine-induced, 243

Arthrogryposis multiplex congenita, continuous spinal anesthesia for Cesarean delivery in, 477

Articaine, in vitro metabolism by serum esterases, 576 Aspirin, central neural block and, 529

Asystole, bupivacaine-induced, 243

Atraucan spinal needle

postdural puncture headache and, 461 in vitro comparison with other needles for fluid leakage, 139

Axillary block, transarterial approach, 273 (letter)

Back pain, after spinal anesthesia, 461

Betadine, postdural puncture headache and, 375 (letter) Biological models, for epidural space depth prediction in obstetric analgesia, 451

Blindness, status epilepticus amauroticus secondary to meningitis and, 595

Blood pressure, in laboring parturients, subarachnoid fentanyl and, 103

Book reviews

Clinical Orthopedic Anesthesia (Tetzalaff), 500 Management of Migraine (Spierings), 381

Brachialis motor point, selective block of, 89

Brachial plexus block

by dilution, accelerated recovery from, 600 (letter) for shoulder dislocation, 373 (letter)

Brachial plexus injury, after subclavian vein catheterization, 163

Bradycardia, subarachnoid neostigmine during spinal bupivacaine and, 586

Bupivacaine

antinociceptive and motor-blocking efficacy of, 318 bactericidal activity of, 239

cardiotoxicity, enhancement by nitric oxide synthesis inhibition, 243

epidural

effect on midazolam hypnotic requirements, 209 epidurograms for long-term catheter patients, 61 with essential thrombocythemia, 525

evaluation of, 124

lumbar infusion of, 14

midazolam hypnotic requirements and, 209 plasma levels in kidney transplant recipients, 308 Bupivacaine (Continued)

for femoral nerve block, 292

interscalene block, 166 (letter), 167 (letter)

spinal

analgesic requirements after abdominal surgery and, 281

preoperative, postoperative morphine requirement and, 99

subarachnoid neostigmine during, 586

with sufentanil, and epinephrine, 191

transient radicular irritation after, 26

spread into epidural caudal space, injection rate and, 442

subarachnoid

hemodynamic changes, versus single-dose anesthesia. 298

hyperbaric, neurotoxicity of, 234

serotonin cerebrospinal fluid levels and, 446

with sufentanil, for labor analgesia, 424

Calcium, cytoplasmic, ethanol effects on, 6

Cancer pain

epidural versus subarachnoid and intracerebroventricular opioids, 542

epidurograms for long-term epidural catheter patients, 61

patient-administered sphenopalatine ganglion block for, 68

pediatric, comparison of EMLA application techniques for, 557

peripheral nerve catheterization for, 482

retrocrural anatomy for celiac plexus block and, 407

Cardiac arrest, from coronary spasm during epidural anesthesia recovery, 253

Cardiac index, in laboring parturients, subarachnoid fentanyl and, 103

Cauda equina syndrome, from subarachnoid hyperbaric bupivacaine, 234

Caudal anesthesia, local anesthetic spread related to injection rate, 442

Causalgia, psychological characteristics of, 202

Celiac plexus block

effect on cytoplasmic calcium in arterial smooth muscle and endothelium, 6

retrocrural anatomy with or without pancreatic cancer, 407

Cell culture, effect of ethanol on arterial smooth muscle, 6 Central neural block, hemostasis-altering drugs and, 529 Cerebrospinal fluid, lidocaine concentration after spinal anesthesia, 112

Cervical plexus blocks, combined superficial and deep, 168 (letter)

Cesarean delivery

continuous spinal anesthesia in arthrogryposis multiplex congenita, 477

morphine-induced pruritus, inhibition by droperidol,

Chorioamnionitis, safety of spinal and epidural anesthesia in, 436

Clinical trial design, for acupuncture research, 361

Clonidine

with lidocaine, for retrobulbar block in cataract surgery, 569

spinal failure, for transurethral resection of prostrate, 419

subarachnoid, for refractory reflex sympathetic dystrophy, 249

C1 nerve, dermatomal distribution and, 167 (letter)

Combined spinal-epidural anesthesia

comments on, 275 (letter)

needles, flow rate comparison for, 378 (letter)

technique for, 599 (letter)

Compartment block, 270 (letter)

Complex regional pain syndrome, psychological characteristics of, 202

Complications

brachial plexus injury after subclavian vein catheterization. 163

of central neural block, 197

of epidural anesthesia

Guillain-Barré syndrome and arachnoiditis after, 486 with steroid injections, 149

test dose, high spinal anesthesia after, 119

from patient-controlled analgesia, 338

unexpected neurologic deficit after spinal anesthesia, 355

Contamination, needle tips after subarachnoid puncture,

Continuous infusion

epidural

dose response of sensory and motor block during, 14 during labor, 373 (letter)

lumbar, effect on sensory and motor block, 14

femoral nerve block, for total knee arthroplasty, 292 lumbar plexus blocks and single-shot sciatic nerve

block, 287 spinal

for Cesarean delivery with arthrogryposis multiplex congenita, 477

hemodynamics changes after, 298

monitoring peripheral nerve stimulator for, 480 volume versus concentration for, 112

Conversion disorder, after spinal anesthesia, 355

Coronary artery disease, cardiac arrest in epidural anesthesia recovery and, 253

Corticosteroids, epidural injections, complications with, 149 Cranial nerves, complications after central neural block, 197

Craniectomy, persistent headache after, epidural blood patch for, 602 (letter)

Cruciate ligament reconstruction, combined continuous lumbar plexus and sciatic nerve block for, 287

Cryomicrotome section, for epidural space anatomy examination, 395

Cytokines, response to surgical trauma and anesthesia type, 470

Delivery. See Cesarean delivery; Obstetric anesthesia Dentistry, articaine in vitro metabolism and, 576 Dermatomal distribution, C1 nerve and, 167 (letter) Dogs

antinociceptive and motor-blocking efficacy of epidural anesthesia, 318

lidocaine effects on pulmonary circulation during hyperoxia and hypoxia, 327

neurotoxicity of subarachnoid hyperbaric bupivacaine,

Droperidol, inhibition of epidural morphine-induced pruritus, 312

Dural puncture, with Arrow FlexTip Plus catheter, 75 (letter)

Elderly, lidocaine-clonidine retrobulbar block for cataract surgery in, 569

Electromyography, of Guillain-Barré syndrome and arachnoiditis after epidural anesthesia, 486

Emesis, combined continuous lumbar plexus and singleshot sciatic nerve blocks and, 287

EMLA

application techniques, comparison in pediatric patients, 557

for pain reduction of spinal needle insertion, 561 Endorphins, acupuncture and, 361

Endothelium, ethanol effects on, 6

Endothoracic fascia, local anesthetic injection in, 304 Epidural analgesia

with arachnoid cyst, preeclampsia and triplets, 592 auditory, ocular, and facial complications, 197 comparison of, 191

continuous infusion during labor, 373 (letter) epidural space depth prediction in obstetric population, 451

Guillain-Barré syndrome and arachnoiditis after, 486 with ketamine, as adjunct for morphine, 508, 534 with lidocaine, bilateral radicular pain after, 600 (let-

with morphine. See Morphine, epidural in parturient with essential thrombocytopenia, 525 patient-controlled, pressure sores from, 338 with phenol, spinal cord injury after, 374 (letter) steroid injections, complications with, 149

Epidural anesthesia. See also Combined spinal-epidural anesthesia

antinociceptive and motor-blocking efficacy of, 318 with bupivacaine. See Bupivacaine, epidural epidural hematoma after, 342

evaluation of, 124

with general anesthesia for laparoscopic cholecystectomy, 465

hemostasis-altering drugs and, 529

modulation of protein metabolism in surgical trauma, 430

oral anticoagulant prophylaxis for catheter removal,

posterior epidural space depth, clinical measure of, 456 recovery, cardiac arrest caused by coronary spasm during, 253

removal of knotted epidural catheter, 71

with ropivacaine and bupivacaine, effect on sensory and motor block, 14

safety in parturients with chorioamnionitis, 436

test dose, high spinal anesthesia after, 119

Epidural blood patch

for persistent headache after retromastoid craniectomy, 602 (letter)

for postdural puncture headache following lumbar sympathetic block, 347

Epidural catheter

Arrow FlexTip

dural puncture with, 75 (letter)

experience with, 607 (letter)

avoiding disconnection from connector, 607 (letter) combined end-multiple lateral holes in, 271 (letter) knotted, 71, 606 (letter)

long-term, epidurograms for, 61

nylon

defective, 377 (letter)

stretching on removal, 379 (letter)

removal

knotted, 71

oral anticoagulant prophylaxis for, 517

stretching during, 379 (letter)

Epidural hematoma

after epidural analgesia with postoperative anticoagulation, 272 (letter)

after epidural anesthesia, 342

Epidural space

air bubble expansion, after nitrous oxide inhalation, 144

air infection assessment by transesophageal echocardiography, 77 (letter)

anatomy, examination by cryomicrotome section, 395 depth prediction in obstetric population, 451

posterior depth, clinical measure of, 456 Epidurograms, for long-term epidural catheter patients, 61 **Epinephrine**

effect on maternal glucose levels during epidural anesthesia, 312

with hyaluronidase, effect on pH of local anesthetic solutions, 605 (letter)

for spinal analgesia, with bupivacaine, and sufentanil,

Essential thrombocytopenia, epidural analgesia in parturient and, 525

Esterases, saturable in vitro metabolism of articaine and,

Ethanol, effect on cytoplasmic calcium in arterial smooth muscle and endothelium, 6

Ethyl chloride

for assessing sensory block, 78 (letter)

cutaneous application, 77 (letter)

Evoked potentials, for evaluation of epidural anesthesia, 124

Extended unilateral anesthesia, for herniorrhaphy, 304

Femoral nerve block, for total knee arthroplasty, 292 Fentanyl

epidural, with essential thrombocytopenia, 525 with morphine, for epidural analgesia, 175 subarachnoid, hemodynamic effects of, 103

Formalin test, peroneal afferent nerve discharges in, 226

General anesthesia

with epidural anesthesia, for laparoscopic cholecystectomy, 465

versus spinal anesthesia, effects on postoperative pain and analgesia, 281

Geriatric anesthesia, lidocaine-clonidine for retrobulbar block in cataract surgery, 569

Guillain-Barré syndrome, and arachnoiditis after postoperative epidural analgesia, 486

Gynecologic surgery, preoperative spinal bupivacaine for, 99

Halothane anesthesia

cytokine response to acute stress and, 470

mepivacaine effects on renal sympathetic nerve activity during, 41

Hand surgery, wound infiltration with ketorolac versus intravenous regional anesthesia, 565

Headache. See also Postdural puncture headache

persistent after retromastoid craniectomy, epidural blood patch for, 602 (letter)

pseudo-spinal, 358

Health care financing, outlook for, 474

Hematoma. See also Epidural hematoma

hemostasis-altering drugs and central neural block and, 529

spinal, oral anticoagulant prophylaxis for epidural catheter removal and, 517

Hemodynamic changes, after single-dose and incremental subarachnoid anesthesia, 298

Hemorrhoidectomy, epidural morphine, nalbuphine versus saline as adjuvant for, 214

Hemostasis-altering drugs. See Anticoagulation Heparin

central neural block and, 529

epidural hematoma after epidural anesthesia and, 342 Herniorrhaphy

extended unilateral anesthesia for, 304

incisional morphine under spinal anesthesia for, 93 History, of acupuncture, 361

5-HT receptors, role of sumatriptan in peripheral pain mechanisms and, 219

Hyaluronidase, with epinephrine, effect on pH of local anesthetic solutions, 605 (letter)

Hyperoxic ventilation, lidocaine effects on, 327

Hypotension, subarachnoid neostigmine during spinal bupivacaine and, 586

Hypoxic ventilation, lidocaine effects on, 327

Iliac crest bone graft pain, 77 (letter)

Incremental local anesthetic doses, hemodynamics changes after, 298

Indirect calorimetry, of protein metabolism modulation in epidural analgesia, 430

Infiltration of EMLA, pain reduction for spinal needle insertion and, 561

Inguinal hernia repair. See Herniorrhaphy

Inguinal paravascular block, for post-knee surgery analgesia, 287

Inhaled anesthesia, expansion of epidural air bubbles and, 144 Injection rate, local anesthetic spread into epidural caudal space in children, 442

Interleukin-6, response to surgical trauma and anesthesia type, 470

International Symposium on Regional Anesthesia (ISRA), abstracts, 383

Interscalene block

with bupivacaine, 166 (letter), 167 (letter)

low-volume, for perioperative shoulder pain, 371 (letter)

Intracerebroventricular opioids, versus epidural and subarachnoid analgesia, 542

Intraocular pressure, lidocaine-clonidine, for retrobulbar block in cataract surgery, 569

Intrapopliteal posterior block, for tibial nerve, 601 (letter)

Intravenous regional anesthesia, versus wound infiltration for ketorolac, 565

Ketamine, potentiation of morphine for epidural postoperative pain control, 534

Kidney failure, arteriovenous fistula insertion/revision, antebrachial nerve blocks for, 2

Kidney transplantation, bupivacaine plasma levels after epidural administration, 308

Knee surgery

combined continuous lumbar plexus and sciatic nerve block for, 287

femoral nerve block for, 292

Labor analgesia. See Obstetric analgesia

Laparoscopic surgery, epidural and general anesthesia for pain management in, 465

Laser stimulation, for evaluation of epidural anesthesia, 124

LASRA. See Latin American Society of Regional Anesthesia Latin American Society of Regional Anesthesia

(LASRA), selected abstracts from second scientific meeting, 261

Lidocaine

bactericidal activity of, 239

with clonidine, for retrobulbar block in cataract surgery of elderly, 569

effects on pulmonary circulation during hyperoxia and hypoxia in the dog, 327

with ketorolac for wound infiltration versus intravenous regional anesthesia, 565

for patient-administered sphenopalatine ganglion block, 68

spinal

volume versus concentration for, 112

versus meperidine for postpartum tubal ligation, 84

versus EMLA for pain reduction of spinal needle insertion, 561

Local anesthetics. See also specific local anesthetics

antimicrobial activity of, 239

antinociceptive and motor-blocking efficacy, 318

effect on sensory and motor block, 14

medial and lateral antebrachial cutaneous nerve blocks, 2

pain sensations on intradermal injection of, 374 (letter)

- pH, effect of hyaluronidase addition to epinephrine, 605(letter)
- saturable in vitro metabolism of articaine by serum esterases, 576
- spread into epidural space, injection rate and, 442 Loss-of-resistance technique, expansion of epidural air
- bubbles and, 144 Lumbar puncture
 - for epidural labor anesthesia, 350
 - needle tips after, 35
- postdural puncture headache, epidural blood patch for. 347
- in vitro comparison of fluid leakage after, 139
- Meningitis, secondary status epilepticus amauroticus as cause of blindness, 595
- Meperidine
 - for spinal anesthesia, 81
 - versus lidocaine for spinal anesthesia for postpartum tubal ligation, 84
- Mepivacaine
 - bactericidal activity of, 239
 - for extended unilateral anesthesia, 304
 - sympathetic effects of, 41
- Meta-analysis, problems with, 514
- Michaelis-Menten kinetics, of artcaine saturable *in vitro* metabolism. 576
- Midazolam, hypnotic requirements, effect of epidural bupivacaine on, 209
- Minnesota Multiphasic Personality Inventory, 202
- Money sign, 166 (letter)
- Morphine
- epidural
 - induced pruritus, inhibition by droperidol, 312 ketamine as adjuvant for, 508, 534
 - nalbuphine versus saline as adjuvant for, 214 with or without fentanyl, 175
- epidurograms for long-term epidural catheter patients,
- incisional, following inguinal herniotomy under spinal anesthesia. 93
- induced pruritus, inhibition by droperidol, 312
- postoperative requirements, spinal versus general anesthesia and, 281
- with and without fentanyl for epidural analgesia, 175 Motor point block, brachialis, 89
- Musculocutaneous nerve block, selective block of
- brachialis motor point, 89 Myofascial pain syndrome, versus reflex sympathetic
- dystrophy, 202 Myofascial trigger points, pseudo-spinal headaches and,
- Nalbuphine, versus saline as adjuvant for epidural morphine, 214
- Needles. See also specific types of spinal needles
- back pain and postdural puncture headache after spinal anesthesia, 461
- double-hole pencil-point, 74 (letter)
- flow rate comparison, 378 (letter)

- immobile, for retrobulbar block, 377 (letter)
- redirection and needle position during neural block, 30 for spinal anesthesia in morbidly obese patient, 173
- tips, after subarachnoid puncture, 35
- tissue coring incidence with, 582
- in vitro comparison of fluid leakage after dural puncture, 139
- Neostigmine, blood pressure and heart rate during spinal bupivacaine and, 586
- Nerve block. See also specific nerve blocks
 - antebrachial, medial and lateral, 2
 - central, cranial nerve complications after, 197 needle redirection/position during, 30
- Neurogenic inflammation, sumatriptan dual effect on,
- Neurologic complications, after spinal anesthesia, 355
- Neurolytic agent, effect on cytoplasmic calcium in arterial smooth muscle and endothelium, 6
- Neurotoxicity, of subarachnoid hyperbaric bupivacaine, 234
- Nitric oxide synthesis inhibition, bupivacaine cardiotoxicity and, 243
- Nw-Nitro-L-arginine methyl ester, bupivacaine cardiotoxicity and, 243
- Nitrous oxide
- inhalation, expansion of epidural air bubbles and, 144 mepivacaine effects on renal sympathetic nerve activity during, 41
- NMDA antagonists, differential actions, pain mechanisms and, 508
- **Nociceptors**
 - peroneal afferent nerve discharges in behavioral response to formalin test, 226
 - serotonin cerebrospinal fluid levels, subarachnoid bupivacaine and, 446
- Obesity, modified Tuohy needle for spinal anesthesia in, 173 (letter)
- Obstetric analgesia
 - epidural
 - continuous infusion, 373 (letter)
 - with essential thrombocytopenia, 525
 - with preeclampsia, arachnoid cyst and triplets, 592
 - epidural space depth prediction for, 451
- safety of spinal and epidural anesthesia in chorioamnionitis, 436
- spinal, with bupivacaine, sufentanil and epinephrine,
- with spinal muscular atrophy and vocal cord paralysis, 350
- subarachnoid
- fentanyl, hemodynamic effects of, 103 sufentanil-bupivacaine, 424
- Obstetric anesthesia
 - anesthesiologists and, 49
- high spinal anesthesia after epidural test dose, 119 subarachnoid fentanyl, hemodynamic effects of, 103
- Ophthalmic surgery, lidocaine-clonidine for retrobulbar
 - block in, 569

Opioids. See also Morphine

epidural, versus subarachnoid and intracerebroventricular administration, 542

epidurograms for long-term epidural catheter patients, 61

incisional morphine, following inguinal herniotomy under spinal anesthesia, 93

Pain management. See also specific types of pain and/or specific analgesic techniques

acupuncture for, 361

bilateral radicular, epidural analgesia with lidocaine for, 600 (letter)

chronic, epidurograms for long-term epidural catheter patients, 61

combined continuous lumbar plexus and sciatic nerve block for, 287

iliac crest bone graft, 77 (letter)

patient-administered sphenopalatine ganglion block for, 68

pediatric, comparison of EMLA application techniques for, 557

perioperative shoulder, interscalene brachial plexus block for, 371 (letter)

sensations on intradermal injection of local anesthetics, 374 (letter)

Pancreatic cancer, retrocrural anatomy for celiac plexus block, 407

Parasacral sciatic nerve block, for post-knee surgery analgesia, 287

Parietal thoracic fascia, local anesthetic injection in, 304 Patient-controlled analgesia, pressure sores from, 338 Pediatric patients

comparison of EMLA application techniques, 557 local anesthetic spread into epidural caudal space for two rates of injection, 442

Peribulbar block, versus retrobulbar block, 171 (letter) Peripheral C-fibers, sumatriptan effect on peripheral neurogenic inflammation and, 219

Peripheral nerve catheterization, for cancer pain, 482 Peripheral nerve stimulator, for monitoring continuous spinal anesthesia, 480

Peripheral receptors, incisional morphine, following inguinal herniotomy under spinal anesthesia, 93

Peripheral vascular disease, epidural hematoma after epidural anesthesia, 342

Peroneal nerve, afferent discharges in behavioral response to formalin test, 226

Plasma extravasation, sumatriptan inhibition of, 219 Popliteal fossa, sciatic nerve block through, anatomic considerations for, 414

Postdural puncture headache, 375 (letter)

and back pain after spinal anesthesia with Quincke and Atraucan needles, 461

betadine factor, 375 (letter)

epidural blood patch for, 347

Postoperative period

efficacy of epidural and general anesthesia for laparoscopic cholecystectomy, 465

epidural analgesia, morphine with or without fentanyl for, 175 epidural analgesia in, Guillain-Barré syndrome, arachnoiditis and, 486

epidural hematoma after epidural analgesia and anticoagulation, 272(letter)

Guillain-Barré syndrome and arachnoiditis after epidural anesthesia, 486

incisional morphine, following inguinal herniotomy under spinal anesthesia, 93

ketamine potentiation of morphine for epidural analgesia, 534

spinal analgesia

preoperative bupivacaine for, 99 versus general anesthesia, 281

wound infiltration with ketorolac versus intravenous regional anesthesia, 565

Postpartum tubal ligation, spinal anesthesia, meperidine versus lidocaine for. 84

Preeclampsia, with arachnoid cyst and triplets, epidural analgesia for, 592

Pre-emptive analgesia

with bupivacaine, postoperative morphine requirement and, 99

with fentanyl, 274 (letter)

postoperative abdominal surgery pain and, 281 Pregnancy. See Obstetric analgesia; Obstetric anesthesia

Preoperative local anesthesia, postoperative analgesia and, 277

Pressure sores, from patient-controlled epidural analgesia, 338

Prostate resection, spinal anesthesia failure with clonidine, 419

Protein metabolism modulation, in epidural analgesia for surgical trauma, 430

Pruritus, morphine-induced, inhibition by intravenous droperidol, 312

Pseudo-spinal headache, 358

Psychological characteristics, of myofascial pain syndrome versus reflex sympathetic dystrophy, 202

Pulmonary circulation, effects of lidocaine on during hyperoxia and hypoxia, 327

Quincke needle

for spinal anesthesia, postdural puncture headache after, 461

tissue coring incidence with, 582

versus other needles, in vitro comparison of fluid leakage after, 139

Radicular pain, bilateral, after epidural lidocaine, 600

Recovery, from brachial plexus block, 600 (letter)

Reflex sympathetic dystrophy

refractory, subarachnoid clonidine for, 249

versus myofascial pain syndrome, psychological characteristics of, 202

Regional anesthesia. See also specific regional anesthetic techniques

anatomic considerations for lateral sciatic nerve block, 414

learning curve, 182

needle tips after subarachnoid puncture, 35

in patient receiving thromboprophylaxis, 503 peripheral nerve catheterization for cancer pain, 482 retrocrural anatomy for celiac plexus block in pancreatic cancer. 407

selective block of brachialis motor point, 89 subarachnoid bupivacaine, serotonin cerebrospinal fluid levels and, 446

Renal sympathetic nerve, mepivacaine effects during nitrous oxide and nitrous oxide-halothane anesthesia, 41

Residents, regional anesthesia learning curve, 182 Retrobulbar block

with lidocaine-clonidine, for cataract surgery in elderly, 569

using immobile needle, 377 (letter) versus peribulbar block, 171 (letter)

Revascularization surgery, epidural hematoma after epidural anesthesia for, 342

Ropivacaine

antinociceptive and motor-blocking efficacy, 318 epidural, lumbar infusion of, 14

Saphenous nerve block, new approach for, 490 (letter) Sciatic nerve block, through popliteal fossa, anatomic considerations for, 414

Sedation, from combined continuous lumbar plexus and single-shot sciatic nerve blocks, 287

Seizure, bupivacaine-induced, 243

Sensory block. See Nerve block

Serotonin, cerebrospinal fluid levels, subarachnoid bupivacaine and, 446

Serotonin agonist, dual effect on peripheral neurogenic inflammation, 219

Shoulder dislocation, analgesic brachial plexus block for, 373 (letter)

Single-injection anesthesia

with continuous lumbar plexus block, 287 hemodynamic changes after, 298 for total knee arthroplasty, 292

Skin

complications, from patient-controlled analgesia, 338 depth prediction in epidural space for obstetric analgesia, 451

Somatosensory evoked potentials, for evaluation of epidural anesthesia, 124

Sphenopalatine ganglion block, patient-administered, 68 Spinal analgesia

auditory, ocular, and facial complications, 197 comparison of, 191

during labor with low-dose bupivacaine, sufentanil, and epinephrine, 191

with subarachnoid sufentanil-bupivacaine for advanced labor, 424

Spinal anesthesia. See also Combined spinal-epidural anesthesia

changes in lower extremity venous capacitance during, 376 (letter)

failure with clonidine for transurethral resection of prostrate, 419

hemostasis-altering drugs and, 529 high, after epidural test dose, 119 incidence of tissue coring in, 582

lidocaine for, 84

and lower-abdominal laparotomy, cytokine response to acute stress and, 470

meperidine for, 81, 84

needle insertion, EMLA for pain reduction of, 561 needle tips after, 35

neurotoxicity of subarachnoid hyperbaric bupivacaine,

in obese patient, modified Tuohy needle for, 173 (letter)

oral anticoagulant prophylaxis for epidural catheter removal, 517

postdural puncture headache after, 461

preoperative bupivacaine, 99

safety in parturients with chorioamnionitis, 436

transient radicular irritation after, 26

unexpected neurologic deficit after, 355

in vitro comparison of fluid leakage after dural puncture, 139

volume versus concentration, 112

versus general anesthesia, effects on postoperative pain and analgesia, 281

Spinal cord injury, after epidural phenol, spinal vasculature thrombosis and, 374 (letter)

Spinal-epidural-general anesthesia, 608 (letter)

Spinal muscular atrophy, labor analgesia/anesthesia and, 350

Spinal opiates, differential actions, pain mechanisms and, 508

Spinal vasculature thrombosis, spinal cord injury after epidural phenol and, 374 (letter)

Splanchnic block, retrocrural anatomy with or without pancreatic cancer, 407

Sprotte needle

flow rate comparison, 378 (letter)

new design for, 172 (letter)

versus other needles, in vitro comparison of fluid leakage after, 139

Staphylococcus aureus, antimicrobial activity of local anesthetics, 239

Status epilepticus amauroticus, secondary to meningitis in postpartum blindness, 595

Sternocleidomastoid muscle, pseudo-spinal headaches and, 358

Stroke index, in laboring parturients, subarachnoid fentanyl and, 103

Subarachnoid analgesia

with bupivacaine, serotonin cerebrospinal fluid levels and, 446

with clonidine for refractory reflex sympathetic dystrophy, 249

epidural injections, complications with, 149

with fentanyl, hemodynamic effects of, 103

with neostigmine during bupivacaine spinal anesthesia, 586

opioids, versus epidural and intracerebroventricular administration, 542

with sufentanil-bupivacaine for advanced labor, 424 Subarachnoid anesthesia, posterior epidural space depth, clinical measure of, 456 Subclavian vein catheterization, attempt, brachial plexus neuropathy after, 163

Subdural space, extent of, 75 (letter)

Sufentanil

for spinal analgesia, with bupivacaine, and epinephrine, 191

with subarachnoid bupivacaine for labor analgesia, 424

Sumatriptan, dual effect on peripheral neurogenic inflammation, 219

Suprascapular nerve block, 371 (letter)

Surgical arteriovenous shunt, antebrachial nerve blocks for, 2

Surgical trauma, and anesthesia type, cytokine response and, 470

Sympathetic-mediated pain, subarachnoid clonidine for, 249

Sympathetic nervous system, spinal anesthesia failure with clonidine, for transurethral resection of prostrate, 419

Test dosing, high spinal anesthesia after, 119

Thermal stimulation, for evaluation of epidural anesthesia, 124

Three-in-one block, for post-knee surgery analgesia, 287 Thrombocytopenia, epidural analgesia in parturient and,

Thromboelastography, for epidural analgesia in parturient with essential thrombocytopenia, 525

Thromboprophylaxis, regional anesthesia and analgesia in. 503

Tibial nerve block, by intrapopliteal posterior block, 601 (letter)

Tissue coring, incidence with Quincke and Whitacre needles, 582

Topical analgesia, comparison of EMLA application techniques for, 557

Transesophageal echocardiography, for epidural space air infection assessment, 77 (letter)

Transient radicular irritation, after spinal anesthesia, 26 Transurethral resection of prostate, spinal anesthesia failure with clonidine, 419

Trauma, surgical, protein metabolism modulation in epidural analgesia for, 430

Triplet pregnancy, with preeclampsia and arachnoid cyst, epidural analgesia for, 592

Tuohy needle, for spinal anesthesia in morbidly obese patient, 173 (letter)

Urokinase, epidural hematoma after epidural anesthesia and, 342

Urologic surgery, spinal anesthesia failure with clonidine, 419

Vascular smooth muscle, ethanol effects on, 6

Venous capacitance, changes in lower extremities during spinal anesthesia, 376 (letter)

Vocal cord paralysis, labor analgesia/anesthesia and, 350

Warfarin

central neural block and, 529

prophylaxis for epidural catheter removal, 517

Whitacre needle

flow rate comparison, 378 (letter)

tissue coring incidence with, 582

versus other needles, in vitro comparison of fluid leakage after, 139

Wound infiltration, of ketorolac versus intravenous regional anesthesia, 565

Author Index: Volume 21, 1996

Abeyewardene, Lankike, 377 Abouleish, Ezzat I., 167 Abram, Stephen E., 149, 226, 514 Acosta, M., 342 Adel, Sven-Olof, 124 Adriaensen, Hugo A., 191 Agostoni, Massimo, 373 Alam, Shamsul, 270, 371, 492, 607, 608 Aldrete, J. Antonio, 498, 599 Amraoui, Mohamed, 569 Ananthanarayan, Chidambaram, 607 Andersen, G., 93 Andersson, Leif C., 35 Anner, Haim, 168 Antonik, Laurie, 592 Antonsen, K., 93 Anyanwu-Okoli, Isabel, 77 April, Ernest W., 414 Arkoosh, V.A., 84 Arthur, G. Richard, 318 Artis, M., 491 Atallah, Mohammed, 308 Avellanal, Martin, 601 Axelsson, Kjell, 14, 124

Badenhorst, Casper H., 272 Ballantyne, Jane C., 542 Balsells, J., 171 Bannister, J., 529 Batra, M.S., 1 Baumgarten, Richard K., 495 Beach, Michael, 451 Beilin, B., 71 Benaguida, Mohamed, 569 Benhamou, Dan, 490 Bennetts, F.E., 287 Benzon, Honorio, 600 Berkey, Catherine S., 542 Berlatzky, Yacov, 168 Bernal, J., 171 Bernard, Jean-Marc, 419 Berndt, A., 576 Bernini, Gabriella, 557 Bevacqua, Brian K., 172, 456 Birnbach, David J., 275, 477 Blanco, Domingo, 442 Bouaziz, Hervé, 490 Brand, Frances, 456 Brems, John, 167 Brown, Anthony R., 166

Brown, David L., 6, 407 Bruin, Gerard, 371 Buchanan, Thomas S., 89 Burdash, N., 470 Busoni, Paolo, 557 Butterworth, John, 81

Calamandrei, Marco, 557 Caldwell, Matthew, 379 Campbell, David C., 582 Carli, Francesco, 99, 430 Carlsson, Christer, 304 Carpenter, Randall L., 261, 480 Carr, Daniel B., 542 Casati, A., 298 Cassidy, J. David, 292 Castiglia, Yara M.M., 234 Chalmers, Thomas C., 542 Cherala, Sundaraj R., 76 Chhibber, Ashwani K., 355 Christiansen, C., 446 Chrubasik, Joachim, 175 Chrubasik, Sigrun, 175 Coissard, A., 491 Collier, Clive B., 75 Crosby, Edward, 496 Currier, David S., 172 Cutler, Stephen, 304

Dadic, P., 525 Dakin, Melanie J., 99 Dan, Kenjiro, 239 Danzer, Brett I., 275 da Rocha Gonçalves, Zonia, 312 da Silva Teixeira, João Paulo, 312 Datta, Sanjay, 497 Day, C.J.E., 197 Dean, Caron, 226 de Córdoba, J.L., 171 DeHorta, Eric, 436 De Jongh, Raf F., 338 Dellaria, Suzanne, 379 de Melo, Paulo Ricardo Melo, 312 de Oliveira, Maria Alice Durate, 312 DeSio, John M., 347 Dewan, David M., 595 DiFazio, Cosmo A., 350 Doucette, Ann Marie, 318 Douglas, M. Joanne, 582 Dunteman, Edwin, 358 Du Pen, Stuart L., 61

Duprat, Karen Marie, 565 Dust, William N., 292 Dvoskin, Sofya, 318

Eappen, Sunil, 451 Eckstein, Kari-Ludwig, 374 Einav, Sharon, 168 Eldor, Joseph, 74, 271, 373 Elias, Mazin A.Y., 600 Else, T.A., 482 England, A.J., 605 Erickson, James C., 89 Erikson, Scott, 144

Fanelli, G., 298, 373
Feldman, Hal S., 318
Feldman, Robert K., 61
Fernandez-Llamazares, J, 442
Ferrante, F. Michael, 381
Finegold, Helene, 602
Finger, Jacob, 209
Fischer, H.B.J., 482
Fleming, I.M., 482
Fleyshman, Grigory, 209
Foo, I., 139
Fragneto, Regina, 497
Fu, E.S., 274, 470
Fujimori, Mitsugu, 41, 327

Gaiser, Robert R., 592 Gajraj, Noor M., 561 Gallagher, Edward T., 304 Ganem, Eliana Marisa, 234 Ganta, Raghuvender, 377 Gerancher, J.C., 480 Glassenberg, Raymond, 494 Glazener, Edwin L., 375 Goldstein, Marilyn J., 595 Goodman, Evan J., 436 Gottlieb, Alexandru, 253 Gozal, D., 71, 606 Gozal, Y., 71, 606 Green, David M., 77 Grouls, R.J.E., 112 Gurmarnik, Simon, 375

Haas, Tamara, 456 Hacobian, Asteghik, 347 Hadzic, Admir, 414 Hafer, Fred D., 76 Hage, Rolf, 175 Hakala, Pertti, 35 Hallgren, Stig, 124 Halliday, David, 430 Halsey, Teresa J., 6 Hamdani, Mohamed, 569 Hammersly, Susan, 173 Hammouda, Golinar E., 308 Hardy, Paul A.J., 249 Harrar, Najib El, 569 Havashi, Masanori, 327 Heavner, James E., 243 Heierson, Agneta, 14 Henthorne, Randall W., 377 Heylen, René J., 338 Hindberg, I., 446 Hirst, Georgia C., 292 Ho, Shung-Tai, 214, 281, 534 Hogan, Ouinn, 376, 395 Honet, J.E., 84 Hopwood, Margaret, 514 Horlocker, Terese T., 30, 503 Horta, Marcio Leal, 312 Hsu, Dora T., 361 Hu, Oliver Yoa-Pu, 214 Huhtala, Jukka, 26 Hutchison, G., 529

Introna, R.P.S., 274 Ishino, Hiroyuki, 239

Jagetia, Anil, 253 Jamnback, Lisa, 103 Johnson, Michael E., 6

Kabeer, Atika A., 249
Kaider, Alexandra, 461
Kandror, Konstantin V., 375
Kao, Tzu-Cheg, 144
Kaplan, Ronald, 374
Karawiadi, Sri L., 191
Kim, Charles, 600
Kirch, W., 576
Kissin, Igor, 209
Kitain, Eric, 414
Kopacz, Dan J., 182
Korsten, H.H.M., 112
Kosaka, Yoshihiro, 607
Krishnamurthy, V., 525
Kuroda, Max, 414

Lambert, D.H., 112 Landesberg, Giora, 168 Lang, Scott A., 292 Lauretti, G.R., 586 Lee, Andrew C., 119 Lehmann, Lance J., 347 Lehofer, Franz, 461 Leighton, B.L., 84 Leissner, Lena, 124 Leissner, Pehr, 124 Lesitsky, Mark A., 253 Lesser, Jonathan B., 414 Levine, Jon D., 219 Liaw, Wen-Jinn, 281, 534 Liguori, Gregory A., 378 Lindgren, Leena, 26 Lippi, Alma, 557 Liu, Hang-Seng, 281 Liu, Spencer, 494 Livermore, Mary, 424 Llonch, J.M., 171 Lowe, Kevin, 561 Lowenwirt, I., 525 Luchetti, M., 465 Lucio, John, 144 Lund, C., 93 Lustik, Stewart J., 355

Mackenzie, A., 529 Mader, Wolfgang, 374 Malinovsky, Jean-Marc, 419 Mandell, Gordon L., 103 Mansour, N.Y., 270, 287 Marchesi, M., 373 Margolis, Judith O., 603 Marques, Mariângela, 234 Martin, Dan C., 274 Martnez-Pallí, G., 342 Maruyama, Koichi, 304 Mason, Stephen B., 424 Massa, G., 465 Mazo. V., 442 McCrae, A.F., 139 McDavid, Andrew J., 605 McGuire, Glenn, 371 McVeigh, J. Randall, 173 Mercadante, S., 372 Messeri, Andrea, 557 Messick, Joseph M. Jr., 163 Millar, F.A., 529 Mizikar, William E., 377 Mjahed, Khalid, 569 Morimoto, Osamu, 41 Morrison, L.M.M., 139 Mosteller, Frederick, 542

Naesh, O., 446 Nalda, M.A., 342 Narchi, Patrick, 490 Neal, Joseph M., 182 Nelson, David V., 202 Niedzwiecki, Colleen, 379 Nishikawa, Kiyonobu, 41 Norman. J.G., 470 Norris, M.C., 84 Novy, Diane M., 202 Nydahl, Per-Anders, 14, 124

O'Connor, Therese C., 149, 226 Oertel, R., 576 Ojea, Ricardo, 601 Ortiz, M., 442 Osinubi, Omowunmi, 77 Osinubi, Oumi Y.O., 99

Paige, Glenn B., 68 Palomba, R., 465 Parker, R. Lamar, 595 Pascale, Valentine J., 492 Peláez, Manuel, 601 Perkins, Frederick M., 517 Peroutka, Stephen J., 219 Pertek, Jean-Pierre, 491 Peters, T.M., 482 Petty, Robert, 144 Pfisterer, Markus, 175 Phil. M., 99, 430 Philip, John. 493 Philipson, Lennart, 14, 124 Pierce, Pamela A., 219 Pitkänen, Mikko, 35, 243 Plumer, Michael H., 49 Pollock, Julia E., 182 Prus, Diana, 168

Ragukonis, Thomas P., 166 Raja, Srinivasa N., 277 Ramanathan, Sivam, 103 Ramos, Lourenço, 312 Rasmussen, H., 93 Rathmell, James P., 2, 424 Reese, Jeffrey, 2 Reineke, R., 373 Reis, M.P., 586 Reuben, Scott S., 565 Richards, K., 605 Richardson, Michael G., 119 Rome, Jeffrey D., 163 Rosenberg, Per H., 35 Rosenberg, Samuel K., 486 Rosenstock, C., 93 Ross, Allison K., 603 Rottman, Richard, 49 Rozkowski, Anna, 477 Rubin, A.P., 605

Saade, Edouard, 68
Saberski, Lloyd R., 77, 492
Saffian, Michael, 253
Saito, Noriyuki, 304
Saito, Toshiyuki, 304
Sakuragi, Tadakazu, 239
Sala-Blanch, X., 342
Salvadó, E., 342
Samuelsson, Lars, 14, 124
Sanchez-Dalmau, B., 171
Schapiro, Howard, 424
Scharf, J.E., 274, 470
Schultz, Anette-Marie, 461
Schultze-Mönting, Jügen, 175

- Scott, D.B., 139 Segal, Scott, 451 Sharma, Shiv K., 493, 561 Shi, Bing, 243 Shifrin, Vitaly, 209 Shug, S.A., 382 Shutt, L.E., 197 Sica, G., 465 Sidawi, J. Elaine, 561 Sill, J. Christopher, 6 Smet, Iris G.G., 338 Smyczek, Dorota, 477 Soderman, Mark, 498 Sprung, Juraj, 253 Stacey, Brett R., 377, 486, 602 Stan, Thomas C., 496 Steele, Susan M., 603 Stephens, David H., 407 Stevens, Rom, 144 Stuart, Anthony, L., 605 Su, Ying-Fu, 534 Swarm, Robert, 358
- Taguiam, Jean M., 436 Tanuma, Kumiko, 304 Tarkkila, Pekka, 26 Tatekawa, Shigeki, 327 Taylor, G., 582 Tetzlaff, John E., 167

- Thomas, Stephen J., 474
 Thys, Daniel M., 414
 Tonellotto, Daiana, 312
 Torri, G., 298
 Trentman, Terrence L., 163
 Tucci, Fabio, 557
 Tucker, Christian, 253
 Tufano, R., 465
 Tung, Che-Se, 534
 Tuominen, Marjatta, 26
 Turner, Steven, 358
 Tverskoy, Mark, 209
 Tze, Tswei-Shen, 281
 Tzeng, Jann-Inn, 281
- Uhl, Cindy B., 6 Ulbing, Sabine, 461
- Vane, Luis Antonio, 234
 Van Steenberge, Albert L., 191
 Van Zundert, A.A.J., 112
 Veloso, Kathleen M., 500
 Vercauteren, Marcel P., 191, 338
 Vianna, Pedro Thadeu G., 234
 Vidal, F., 442
 Viscomi, Christopher M., 2, 424
 Vloka, Jerry D., 414
 Vundelinckx, Guy J.M., 338
 Wace, J.R., 78
- Waldman, Seth A., 378
 Walker, Francis, 81
 Wang, Jhi-Joung, 214, 281
 Wassef, Medhat R., 273, 491
 Weber, Joseph G., 407
 Weston, Lucy A., 350
 Whitten, Charles W., 493
 Wildsmith, J.A.W., 139
 Williams, Anna R., 61
 Wilson, Steve, 374
 Wissler, Richard N., 119
 Wong, Chih-Shung, 534
 Wong, Cynthia A., 494, 600
 Wong, Gilbert Y., 407
 Wu, Christopher L., 517
- Xie, Guo-Xi, 219
- Yahya, Raida, 308 Yaksh, Tony L., 508 Yamada, Koki, 304 Yip, Raymond W., 292 Yoon, Helen J., 167 Yukioka, Hidekazu, 41, 327
- Zangrillo, A., 298 Zaric, Dusanka, 14, 124